

IN THE CLAIMS

Please amend Claims 1, 5, 6, 13-16, and 18-22, and add new Claim 27, to read as follows.

1. (Currently Amended) An image displaying apparatus comprising:
a first plate including at least an electron beam source;
a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode and around the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode, which is spaced from the anode, contacting or being disposed close to the potential regulating electrode thereby electrically connected with the potential regulating electrode.

2. (Original) An image displaying apparatus according to claim 1, wherein said spacing member further includes an electrode contacting or being disposed close to the anode thereby electrically connected with the anode.

3. (Original) An image displaying apparatus according to claim 1, wherein said spacing member further includes an electrode contacting or being disposed close to the

electrode disposed on said first plate side to be electrically connected with the electrode.

4. (Original) An image displaying apparatus according to claim 1, wherein an earth potential is supplied to the potential regulating electrode.

5. (Currently Amended) An image displaying apparatus according to claim 1, wherein an electric potential equal to or lower than a lowest electric potential among electric potentials supplied to the electron beam source is supplied to the potential regulating electrode or more.

6. (Currently Amended) An image displaying apparatus ~~according to claim 1~~, comprising:

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential

regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein:

the anode includes an image area in which a phosphor ~~emitting~~ emits light by being irradiated with electrons from the electron beam source[[]], and

when an averaged height of a portion of the anode contacting the spacing member on an outside of the image area is indicated by Da, and a surface roughness of the portion is indicated by Ra, and an averaged height of a portion of the potential regulating electrode contacting the spacing member is indicated by Db, and a surface roughness of the portion is indicated by Rb, the averaged heights Da and Db and the surface roughnesses Ra and Rb meet following conditions:

$$|Da - Db| \leq 2Ra, \text{ and } |Da - Db| \leq 2Rb.$$

7. (Original) An image displaying apparatus according to claim 1, wherein at least an area of said second plate between the anode and the potential regulating electrode has a sheet resistance within a range of 10^7 (Ω/\square) to 10^{14} (Ω/\square).

8. (Original) An image displaying apparatus according to claim 1, wherein a high resistance membrane is formed at least in an area of said second plate between the anode and the potential regulating electrode.

9. (Original) An image displaying apparatus according to claim 1, wherein

an area having a sheet resistance within a range of 10^7 (Ω/\square) to 10^{14} (Ω/\square) exists on the spacing member at least between a portion thereof contacting the anode and a portion thereof contacting the potential regulating electrode.

10. (Original) An image displaying apparatus according to claim 1, wherein a high resistance membrane is formed on the spacing member at least between a portion thereof contacting the anode and a portion thereof contacting the potential regulating electrode.

11. (Original) An image displaying apparatus according to claim 1, wherein:

the spacing member includes an electrode contacting or being disposed close to the anode thereby electrically coupled with the anode and an electrode contacting or being disposed close to the potential regulating electrode thereby electrically connected with the potential regulating electrode; and

an area between the electrode contacting or being disposed close to the anode thereby electrically coupled with the anode and the electrode contacting or being disposed close to the potential regulating electrode thereby electrically connected with the potential regulating electrode has a sheet resistance within a range of 10^7 (Ω/\square) to 10^{14} (Ω/\square).

12. (Original) An image displaying apparatus according to claim 1,

wherein the spacing member includes an electrode contacting or being disposed close to the anode thereby electrically coupled with the anode, an electrode contacting or being disposed close to the potential regulating electrode thereby electrically connected with the potential regulating electrode and a high resistance membrane contacting or being disposed close to each of the electrode contacting or being disposed close to the anode thereby electrically coupled with the anode and the electrode contacting or being disposed close to the potential regulating electrode thereby electrically connected with the potential regulating electrode thereby electrically connected with them.

13. (Currently Amended) An image displaying apparatus ~~according to claim 1, comprising:~~

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein:

the spacing member includes an electrode contacting or being disposed close to the anode thereby electrically coupled with the anode and an electrode contacting or being disposed close to the potential regulating electrode thereby electrically connected with the potential regulating electrode[[]], and

an interval between the electrode contacting or being disposed close to the anode thereby electrically coupled with the anode and the electrode contacting or being disposed close to the potential regulating electrode thereby electrically connected with the potential regulating electrode is substantially the same as an interval between the anode and the potential regulating electrode.

14. (Currently Amended) An image displaying apparatus according to claim 1, comprising:

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential

regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein an interval between a projective position of an extreme point on the anode side of the potential regulating electrode to the spacing member and a position of an extreme point on the anode side of an electrode contacting or being disposed close to the potential regulating electrode of the spacing member thereby electrically connected with the potential regulating electrode is ten percent or less of an interval between the potential regulating electrode and the anode.

15. (Currently Amended) An image displaying apparatus ~~according to claim 1, comprising:~~

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein:

the spacing member includes an electrode contacting or being disposed close to the anode thereby electrically connected with the anode; and

an interval between a projective position of an extreme point on the potential regulating electrode side of the anode to the spacing member and a position of an extreme point on the potential regulating electrode side of the electrode of the spacing member, the electrode contacting or being disposed close to the anode thereby electrically connected with the anode, is ten percent or less of an interval between the potential regulating electrode and the anode.

16. (Currently Amended) An image displaying apparatus ~~according to claim 1, comprising:~~

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential

regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein at least a part of said second plate and the spacing member contacts between the potential regulating electrode and the anode of said second plate.

17. (Original) An image displaying apparatus according to claim 1, wherein a structure contacting the spacing member is provided in an area between the anode and the potential regulating electrode of said second plate.

18. (Currently Amended) An image displaying apparatus ~~according to claim 17, comprising:~~

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein a structure contacting the spacing member is provided in an area between the anode and the potential regulating electrode of said second plate, and

wherein, when an averaged height of said structure contacting the spacing member of said second plate is indicated by Dc, and an averaged height of a portion of the anode contacting the spacing member is indicated by Da, and a surface roughness of the portion is indicated by Ra, and an averaged height of a portion of the potential regulating electrode contacting the spacing member is indicated by Db, and a surface roughness of the portion is indicated by Rb, the averaged heights Dc, Da and Db and the surface roughnesses Ra and Rb meet at least one of following formulae:

$$|Da - Dc| \leq 2Ra, |Db - Dc| \leq 2Rb.$$

19. (Currently Amended) An image displaying apparatus according to claim 17, wherein said structure contacting the spacing member ~~of said second plate~~ is composed of a high resistance material.

20. (Currently Amended) An image displaying apparatus ~~according to claim 17, comprising:~~

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the

anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein a structure contacting the spacing member is provided in an area between the anode and the potential regulating electrode of said second plate, and

wherein a high resistance membrane having a volume resistivity lower than that of said structure is formed on a surface of said structure contacting the spacing member of said second plate.

21. (Currently Amended) An image displaying apparatus ~~according to claim 1, comprising:~~

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said

spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein the spacing member has a structure for contacting an area between the anode and the potential regulating electrode of said second plate.

22. (Currently Amended) An image displaying apparatus ~~according to claim 21, comprising:~~

a first plate including at least an electron beam source;

a second plate including an anode to which an electric potential for accelerating an electron beam from the electron beam source is applied, and a potential regulating electrode to which a predetermined electric potential lower than that of the anode is applied, the potential regulating electrode being situated at an outside of the anode; and

a spacing member provided between said first and second plates, said spacing member contacting both of the anode and the potential regulating electrode, said spacing member including an electrode contacting or being disposed close to the potential regulating electrode, thereby being electrically connected with the potential regulating electrode,

wherein the spacing member has a structure for contacting an area between the anode and the potential regulating electrode of said second plate, and

wherein said structure of the spacing member for contacting the area between the anode and the potential regulating electrode of said second plate is a projecting configuration.

23. (Original) An image displaying apparatus according to claim 1, wherein the spacing member includes a high resistance membrane.

24. (Original) An image displaying apparatus according to claim 23, wherein a sheet resistance of the high resistance membranes of the spacing member is within a range of 1×10^7 (Ω/\square) to 1×10^{14} (Ω/\square).

25. (Original) An image displaying apparatus according to claim 1, wherein the electron beam source provided on said first plate is disposed in a matrix.

26. (Original) An image displaying apparatus according to claim 1, wherein the electron beam source is composed of surface conduction electron-emitting devices.

27. (New) An image display apparatus according to claim 1, wherein the potential regulating electrode surrounds completely the anode.